

Page 1, line 22 to page 2, line 4, please replace the paragraph with the following paragraph, with a marked-up copy of the replaced paragraph being included in the Appendix attached to this amendment:

Normally, ceramic membranes are made of a multi-layer system of porous ceramic whose individual layers have different pore widths. The actual filtering layer is the thinnest and most micro-porous of the system. It is situated on a coarsely porous and thicker layer, and this in turn on the next layer, etc. The coarsely porous material forms the support, which simultaneously assumes the mechanic carrier function of the overall system and also frequently forms the filtrate collection structures. The intermediate layers between support and filtering layer serve to reduce the interstices between the coarse particles of the support and the support of the finer particles of the subsequent layer. Depending upon the desired size of separation, at least one layer, but most of the time at least two layers are currently applied on the support for micro-filtration membranes (size of separation 1000 nm to 200 nm), at least two, but for the most part more than three layers are applied on the support for ultra-filtration membranes (size of separation 100 nm to 10 nm) and more than three layers are applied on the support for nano-filtration membranes (size of separation less than 10 nm).

Page 2, lines 22 to 25, please replace the paragraph with the following paragraph, with a marked-up copy of the replaced paragraph being included in the Appendix attached to this amendment:

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However, in this case, layers of different ceramics that have different properties (such as insulating and conductive) are sintered with one another with the goal of achieving the highest possible density of the layers (for example, U.S. Patent Nos. 3,978,248 and 5,683,528).

Page 3, lines 19 to 25, please replace the paragraph with the following paragraph, with a marked-up copy of the replaced paragraph being included in the Appendix attached to this amendment:

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According to WO 96/30207, a process is known in which the shrinkage adaptation of a component of a multi-layer system is achieved by the use of nanoscale powders. In the case of coarsely porous filters, coarse powders are used and the nanoscale powder is added to the mixture to promote its fusion, while, in the case of fine powders, the nanoscale powder itself is used and sintering inhibitors are added in order to prevent fusion that is too strong. Agglomerates of the nanoscale powder are also used as coarse powder.

Page 5, lines 8, please insert and center:

---SUMMARY OF THE INVENTION---

Page 5, line 13, please insert and center:

---DETAILED DESCRIPTION OF THE PRESENT INVENTION---

Page 5, lines 14-26, please replace the paragraph with the following paragraph, with a marked-up copy of the replaced paragraph being included in the Appendix attached to this amendment:

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The ceramic multi-layer filters in accordance with the invention are manufactured in accordance with the invention by the sintering temperature and material system being selected in such a manner that the powders used remain passive, i.e., that their size, morphology, and composition/crystal structure do not or only negligibly alters. The bonding of the particles takes place during sintering via an additional liquid phase, which encases the powder particles and connects on the contact surfaces. This liquid phase must be coordinated with the sintering temperature and the material system in such a way that

- The liquid phase has a low viscosity with the selected sintering temperature and good wetting of the powder takes place.
- The liquid phase enters into no reactions or only slight reactions with the powder.
- The liquid phase itself has an increased surface tension in order to avoid being absorbed into the capillary system of the pores.

Page 6, line 25, please insert and center:

---EXAMPLES---